

· APPLICANTS: DiTullio et al.
U.S.S.N.:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (presently amended) A method of delivering a DNA to a spermatogonium, comprising infusing *in situ* DNA into a testicle of a non-human animal and administering a condition or substance to said testicle to increase uptake of said DNA by said spermatogonium, wherein said animal is a chicken.
2. (originally filed) The method of claim 1, wherein said condition is passage of an electrical current through the testicle.
- 3.-4. (canceled)
5. (originally filed) The method of claim 1, wherein said substance is a lipid or a phospholipid.
6. (originally filed) The method of claim 1, wherein said DNA is infused in a volume of at least 0.1 ml per testicle.
7. (canceled)

· APPLICANTS: DiTullio et al.
U.S.S.N.:

8. (originally filed) The method of claim 1, wherein said DNA is introduced into said spermatogonium by viral infection.

9.- 10. (canceled)

11. (originally filed) The method of claim 1, wherein said animal is ~~prepubetal~~ prepubertal.

12. (originally filed) The method of claim 1, wherein said DNA comprises a sequences encoding a selectable marker.

13. (originally filed) The method of claim 12, wherein said selectable marker is selected from the group consisting of antibiotic resistance gene, a cell surface antigen, or thymidine kinase.

14. (originally filed) The method of claim 1, wherein DNA is administered to said testicle before the time at which sperm production is detected.

15. -16. (canceled).

17. (originally filed) The method of claim 1, wherein said DNA is naked.

18. (presently amended) A method of making a non-human transgenic animal comprising infusing *in situ* DNA into a testicle of a ~~prepubetal~~ prepubertal non-human animal, harvesting

APPLICANTS: DiTullio et al.
U.S.S.N.:

sperm cells from said animal, contacting an ovum with said sperm cells under conditions suitable for fertilization to produce said nonhuman transgenic animal, wherein said animal is a chicken.

19. - 20. (canceled)

--21. (new) A method of delivering a DNA to a spermatogonium, comprising infusing in situ said DNA into a testicle of a prepubertal chicken and administering a lipid or phospholipid to said testicle to facilitate uptake of said DNA by said spermatogonium, wherein said DNA is infused into said testicle before production of sperm by meiosis in said testicle.

22. (new) A method of delivering a DNA to a spermatogonium, comprising infusing said DNA directly into a testicle of a prepubertal chicken, wherein said DNA is packaged into a viral vector and is infused into said testicle before production of sperm by meiosis in said testicle.

23. (new) A method of delivering a naked DNA to a spermatogonium, comprising infusing in situ said naked DNA into a testicle of a prepubertal chicken, wherein said naked DNA is infused into said testicle before production of sperm by meiosis in said testicle.

24. (new) A method of delivering a DNA to a spermatogonium, comprising infusing in situ said naked DNA into a testicle of a prepubertal chicken and administering DEAE-dextran to said testicle to facilitate uptake of said DNA by said spermatogonium, wherein said DNA is infused into said testicle before production of sperm by meiosis in said testicle.

25. (new) A method of delivering a DNA to a spermatogonium, comprising infusing in situ said DNA into a testicle of a chicken and administering an electrical current to said testicle to facilitate uptake of said DNA by said spermatogonium, wherein said DNA is infused into said testicle before production of sperm by meiosis in said testicle and wherein said method does not

· APPLICANTS: DiTullio et al.
U.S.S.N.:

comprise destruction of spermatogenic cells in said animal prior to infusing said DNA into said testicle.

26. (new) A method of delivering a DNA to a spermatogonium, comprising infusing in situ said DNA into a testicle of a prepubertal non-human animal and administering a lipid or a phospholipid to said testicle to facilitate uptake of said DNA by said spermatogonium, wherein said DNA is infused into said testicle before production of sperm by meiosis in said testicle.--